

McHenry County Natural Hazards Mitigation Plan 2013 Third Annual Review Agenda

Tuesday, November 5, 2013 @ 1:00 pm
McHenry County Administration Building
667 Ware Road, Woodstock
Meeting Room (A)

Welcome

Introductions

Review Process

Review of the Action Items 1 - 23
Changes, Deletions

County Actions

Project Updates

Future Projects

Design Manager for Department of Transportation Walter Dittrich

Chief Stormwater Engineer Cory Horton

Jurisdiction Actions

Project Updates

Future Projects

Director of Engineering and Building for City of Crystal Lake Erik Morimoto

State of Illinois Update

Potential Projects and Available Funding

Considerations

Public Comments

Adjournment



McHenry County

Hazard Mitigation Committee

Meeting Notes: November 5, 2013

Introductions: 1pm David Christensen, Director of McHenry County EMA welcomed everyone. There is 25 million unspent dollars with a lock on it to go to mitigation actions for spring flooding funds. Did you know...that with every dollar spent for mitigation, it saves seven in disaster costs?

Review Process: Robert Ellsworth, Asst Director of McHenry County EMA explained the purpose of the plan is to identify activities that can be undertaken by both public and private sectors to reduce safety, health and property issues caused by natural hazards. The plan fulfills the federal mitigation planning requirements for mitigation funding and provides an outline for actions to reduce the impacts of natural and man-made hazards. The Natural Hazards Mitigation Committee was formed in 2008. The plan was adopted by resolution in 2010. The plan is to be updated every 5 years; we are in the 3rd year of the 5 year process. Each year we review the plans action items for changes.

Review of Action Items 1-23 – Bob read the items and asked for input along the way. All information collected on the action items will be used for the updated plan. Please let us know of any additional changes.

#4 Watershed Studies: Silver Lake, Sleepy Hollow Creek, Crystal Lake watershed are reviewing watersheds; need funding for studying.

#5 Expand Stream Gaging Network: Wonder Lake Homeowners Association is working on a cooperative agreement with McHenry County and the United States Geological Survey for water level and quality measurements in the Nippersink Creek.

#9 Continued NFIP Compliance: Upgrading in the process.

#10 Repetitive Loss Areas Study: Annually updates being done.

#11 Identification of Floodplain Structures: Updated in April & June 2013.

#18 Participation in StormReady: County will work with the National Weather Service for this designation.

#19 Strengthen Building Codes & Code Enforcement Training: Update in 2014.

#21 Implementation of the Water Resources Protection Action Plan: Will contact municipalities to record where they're at.

#22 Development of a Public Information Strategy: Reach out by County Planning & Development; will share results.

County Actions:

- Project Updates: Ron Davis, IEMA State Mitigation Officer, sent an email stating that the county application project from 2011 should be moving forward shortly. The request for funding was to

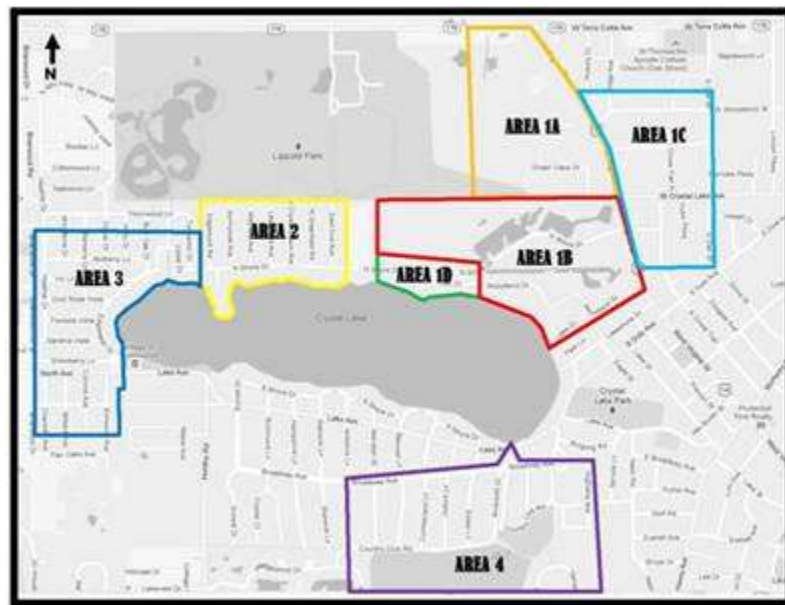
purchase nine flood prone houses along the lower Nippersink Creek. If the grant application is successful, the homes will be demolished and the land would be maintained as permanent open space by McHenry County Conservation District. The Illinois Department of Natural Resources may assist with providing the funding for the project.

- Future Projects: Design Manager for Department of Transportation Walter Dittrich could not be here today he did send along the 5 year project map. Attached is a map of the projects we are looking at for the next 5 years. The bridge projects are shown with a green box. Most of our bridge projects typically involve modeling the floodplain, improving the conveyance under the bridge, and adding compensatory storage in excess of what we are filling in the flood plain.
- McHenry County Storm Water has developed several amendments to the Stormwater Management Ordinance (SMO). These amendments will strengthen the regulation of runoff volume and will ease the burden of permitting on several different types of development. These amendments are currently being reviewed by IDNR and FEMA. The stormwater management ordinance is also undergoing a comprehensive revision with a first draft anticipated in February 2014.
- McHenry County is working on the adoption of the 2012 International Building Code. Once this action is complete, McHenry County will be eligible for an improved Community Rating System (CRS) classification.

Jurisdictional Actions:

- Project Updates: Director of Engineering and Building for City of Crystal Lake Erik Morimoto sent the following report via email:

Flooding Mitigation Improvements – The City continues to plan and implement additional improvements from the 2009 Flooding Study, with design coordination ongoing for the areas identified in the map below. Applications were also submitted for consideration in the Hazard Mitigation Grant Program (HMGP) for Area 1C and Area 4. As a result of the June 26, 2013 storm, additional areas are also being analyzed for potential improvements.



North Shore Drive – The City completed the construction of new culverts beneath North Shore Drive and an enhanced conveyance channel to mitigate roadway flooding that limited access the

subdivision during heavy rain events. This project was the first to be implemented in a series of improvements identified in the 2009 Flooding Study (Area 1B/1D). During the 100-year storm event on June 26th, water did not overtop North Shore Drive as a result of these improvements.

BEFORE:



AFTER:



McHenry Avenue – As part of an overall roadway resurfacing project, certain segments of storm sewer were replaced with larger diameter pipes, eliminating a bottleneck and addressing standing water issues upstream.

Sewer Lining and Grouting – The City has completed a series of lining and grouting improvements at various locations over the past year to help minimize the effects of inflow and infiltration during storm events.

State of Illinois Brian Purchis/State Mitigation Planner:

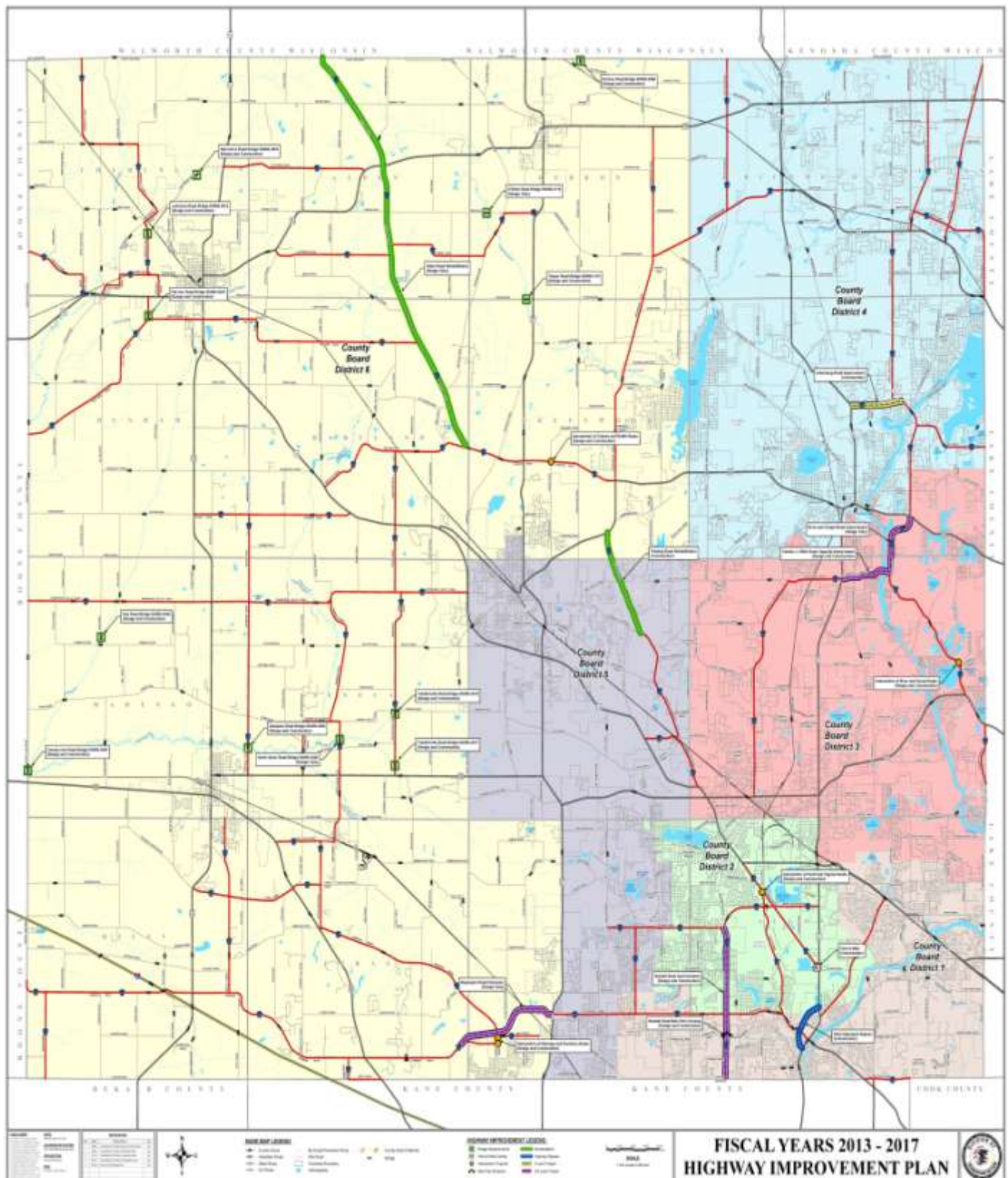
- Brian sent an email report stating that IEMA recently had over 60 applications submitted for the latest Hazard Mitigation Grant Program funds from Disaster 4116 and the application period is closed for new submissions. One of the major mitigation priorities in Illinois is the acquisition of substantially damage properties. The HMGP funds from 4116 were specifically used to target the acquisitions of substantially damaged or repetitive loss properties.

Public Comments:

- Grant funding will be needed for the 5 year update.

- It takes very little effort and money to mitigate vs. recovery efforts & costs. More education is needed to convince the public.
- Each of us needs to take action for ourselves. How can you help yourself? Are you ready?

Adjournment – 1330 hours



McHenry County

Natural Hazards Mitigation Plan

2013 Annual Evaluation Report

Overview

The *McHenry County Natural Hazards Mitigation Plan* (Plan) identifies activities that can be undertaken by both the public and the private sectors to reduce safety hazards, health hazards, and property damage caused by natural hazards. The Plan focuses on the identified major natural hazards facing McHenry County: floods, severe summer and winter storms, tornadoes, extreme cold and heat events, and drought. The most recent natural disasters in McHenry County, Illinois, that received federal disaster declarations were winter storms in 1999, 2001 and 2011* and flooding in 1986, 1993 and 2013*. These disasters impacted people, property owners and businesses in the County. (2011* and 2013* will be added to the 5 year updated submission)

The development and adoption of a natural hazard mitigation plan allow communities to be eligible for Federal Emergency Management Agency (FEMA) hazard mitigation grants program funds. This Plan fulfills the federal mitigation planning requirements for FEMA's Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program and Flood Mitigation Assistance Program, and is eligible for credit under the FEMA National Flood Insurance Program's Community Rating System. Hazard mitigation grant funds are made available by the FEMA through the Illinois Emergency Management Agency (IEMA).

This Plan was prepared by the McHenry County Natural Hazards Mitigation Committee, created by a resolution of the McHenry County Board on December 21, 2010. The Mitigation Committee's members include representatives of County offices, interested municipalities, townships, and agencies.

Action Item 3 calls for the development of an annual evaluation report to be submitted to the County Board to ensure appropriate plan monitoring and maintenance. Annual evaluation reports are intended to provide a review of the Plan direction and recommendations, a summary of natural disasters that impacted McHenry County in reporting year, and a review of the action items implemented since the *Plan* adoption, as appropriate.

The McHenry County Hazard Mitigation Committee met on *November 5, 2013* at the McHenry County Administration Building. The agenda for the annual meeting is provided in *Appendix A* to this report. This 2012/2013 annual evaluation report, for the reporting period of December 2012 to November 2013, is based on information collected from County departments and the municipalities, and the Committee discussion at the *November 5, 2013* meeting.

Plan Evaluation

No changes to the *McHenry County Natural Hazards Mitigation Plan* are necessary at this time.

Natural Disasters During 2013

Severe Storms, Straight-Line Winds and Flooding (DR-4116), Incident period: April 16, 2013 to May 5, 2013, Major Disaster Declaration declared on May 10, 2013, occurred in McHenry County in this reporting period (December 2012 to November 2013).

Review of Action Items

The Action Plan (Chapter 10) in the *McHenry County Natural Hazards Mitigation Plan* contains 23 action items. These action items were taken from the hazard mitigation recommendations made in Chapter 4 through 9. They are identified as preventive, protection, project or public information action items. The implementation of the action items are summarized below.

A. Administrative Action Items

Action Item 1: Plan Adoption

Adopt [the] *McHenry County Natural Hazards Mitigation Plan* by resolution of the County Board, City Councils, Boards of Trustees, and other governing boards, as appropriate.

Status: Ongoing

The *McHenry County Natural Hazards Mitigation Plan* was adopted by resolution by the County, participating municipalities and institutions as shown in Table 1. Adoption resolutions were submitted to IEMA. IEMA transmitted the resolutions to FEMA, and for most communities FEMA has provided a letter of plan approval to IEMA. Some approval letters from FEMA are outstanding; however the FEMA web site shows that all municipalities in the County fall under an “approvable” plan.

Action Item 2: Continuation of Mitigation Committee

The County’s resolution to adopt this *Plan* should convert the McHenry County Natural Hazards Mitigation Committee to a permanent advisory.

Status: Ongoing

The County Board adoption resolution of December 21, 2010 states that the “McHenry County Hazard Mitigation Committee is hereby established as a permanent advisory body.”

The McHenry County Natural Hazards Mitigation Committee has met in November 2011, 2012 and 2013 to share information and provide input into the Annual Reports. All annual reports are shared with the Committee.

Action Item 3: Plan Monitoring and Maintenance

A Natural Hazard Mitigation Committee meeting will be held *at least* once a year to evaluate and monitor progress on implementation. This meeting will be publicized in local newspapers and on the County and community websites (the public will be welcome to attend and/or comment). An annual evaluation report will be submitted to the County Board by the Director of Emergency Management or the current chair of the Mitigation Committee.

Status: Ongoing

This annual evaluation report has been prepared per this action item. A meeting of the Mitigation Committee was held in November of 2011, 2012 and 2013.

B. Mitigation Project Action Items

The *McHenry County Natural Hazards Mitigation Plan* calls for implementation of action items through both countywide and individual community initiatives, as funding and resources become available.

Action Item 4: Watershed Studies

McHenry County should pursue comprehensive watershed studies. This effort will foster the understanding of impact of development on existing flood problems and identify ways to reduce future flood problems. Watershed studies should also evaluate wetlands and water quality impacts of development and other activities in McHenry County.

Status: Silver Lake, Sleepy Hollow Creek, Crystal Lake watershed are reviewing watersheds; funding needed for continued study.

The City of Crystal Lake continues to plan and implement additional improvements from the 2009 Flooding Study, with design coordination ongoing for the areas identified in the map below. Applications were also submitted for consideration in the Hazard Mitigation Grant Program (HMGP). As a result of the June 26, 2013 storm, additional areas are also being analyzed for potential improvements.

Watershed studies have continued within the McHenry County Planning & Development Stormwater Management Division. McHenry County Planning & Development Stormwater Management Division has undertaken detailed watershed investigations to examine localized flooding since the *McHenry County Natural Hazards Mitigation Plan* development.

Action Item 5: Expand Stream Gaging Network

McHenry County should pursue the installation and maintenance of additional stream gages throughout the county. Additional assistance should be sought from the Illinois Department of Natural Resources and the U.S. Geological Survey for funding and technical assistance.

Status: Wonder Lake Homeowners Association is working on a cooperative agreement with McHenry County and the United States Geological Survey for water level and quality measurements in the Nippersink Creek.

Action Item 6: Stream Maintenance Programs

The County, municipalities, and townships should develop and implement formal and regular drainage system maintenance programs. This effort should include the inspection of privately maintained drainage facilities. It is understood that each municipality and township will make these considerations based on available staffing and financial resources. Both urban and rural streams are in need of maintenance. Also, bridges and culverts (active or abandoned) that restrict flood flows should be evaluated. The removal or enlargement of stream crossings, in cases where a modification will not cause an increase in downstream flooding, should be considered and funded.

Status: No action at this time

Action Item 7: Prohibited Waterway Dumping Ordinances

Each community should ensure that they have enforceable stream and wetland dumping ordinances. Regulations should apply to both “objectionable waste” and “non-objectionable” materials such as grass clippings and tree branches. Communities they do not have stream and wetland dumping ordinances should adopt appropriate regulations.

Status: Ongoing

Action Item 8: Mitigation of Public Infrastructure

Mitigation of public infrastructure, including roadways, bridges and culverts, and treatment facilities, for protection from natural hazards should be investigated as the facility or asset is being considered for repair, replacement or expansion. When possible, improvements should incorporate protecting the natural functions of the streams and floodplains, if located in a floodplain.

Status: McHenry County Department of Transportation has a 5 year bridge project map. Attached is a map of the projects they are looking at for the next 5 years. The bridge projects are shown with a green box. Most of our bridge projects typically involve modeling the floodplain, improving the conveyance under the bridge, and adding compensatory storage in excess of what we are filling in the flood plain.

Action Item 9: Continued NFIP Compliance

Municipalities that participate in the National Flood Insurance Program (NFIP) should ensure that they are in full compliance with the NFIP administration and enforcement requirements. While the McHenry County Planning and Development Department administers the McHenry County Comprehensive Storm water Ordinance for non-certified municipalities, all NFIP municipalities are still ultimately responsible for ensuring that development within the regulatory floodplain meets the NFIP minimum standards.

Status: Ongoing

Action Item 10: Repetitive Loss Areas Study

Repetitive flood loss areas (identified as part of this Plan) should be studied and mitigation alternatives, such as acquisition, elevation or flood proofing, identified and investigated for the structures. The County or municipalities should seek a mitigation planning grant as needed for preparing the repetitive loss areas studies.

Status: No County-wide action at this time, however Community Rating System Communities continue to monitor their repetitive loss lists.

Action Item 11: Identification of Floodplain Structures

In addition to examining repetitively flood loss areas, a comprehensive list of structures located in the County’s floodplains should be developed. Through GIS and examining building

footprints, the numbers and types of structures in the floodplain can be determined. The list should include critical facilities that potentially need flood protection.

Status: Updates were done in April & June 2013.

FEMA and the Illinois State Water Survey have begun a Risk MAP project for the Fox River Watershed in McHenry, Lake, Kane and Cook Counties. McHenry County and the Fox River Watershed municipalities participating in the efforts could potentially identify additional flood-risk areas.

Action Item 12: Investigation of Critical Facilities

An investigation/analysis of the critical facilities mapped in the County's GIS as part of this Plan should be conducted to determine if buildings or facilities are located in hazardous locations (floodplains or otherwise). Additional critical facility data should be collected and added to the GIS layers. Emergency managers should provide input on mapping and data formats that would enhance emergency preparedness, response and recovery in the county. The investigation should also identify critical facilities that should be protected from identified natural hazards.

Status: No action at this time

Action Item 13: Critical Facilities Design with Natural Hazards Protection

Offices responsible for design, construction or permitting critical facilities, including federal, state, county and municipal agencies, and institutions should ensure that the design or modification of critical facilities accounts for all natural hazards and adjacent land uses. Critical facilities in the floodplain should be protected to the 500-year flood event.

Status: No action at this time

Action Item 14: Mitigation of Floodplain Properties – Property Protection Projects

Properties that are exposed to flood damage throughout McHenry County should be protected through property protection measures where regional structural projects are not feasible. Property protection measures should include, but not be limited to, acquisition, elevation, or flood proofing. Priority should be given to repetitive loss properties, but all floodplain properties including critical facilities should be included.

Status: Ongoing

In 2011, the Planning and Development Department coordinated with the McHenry County Emergency Management Agency and McHenry County Conservation District to prepare a grant application requesting funding to purchase nine flood prone houses along the lower Nippersink Creek. If the grant application is successful, the homes will be demolished and the land will be maintained as permanent open space by MCCD. It may take the Illinois Emergency Management Agency up to one year to complete its review of the grant application.

Ron Davis, IEMA State Mitigation Officer, sent an email stating that the county application project from 2011 should be moving forward shortly. The request for funding was to purchase nine flood prone houses along the lower Nippersink Creek. If the grant

application is successful, the homes will be demolished and the land would be maintained as permanent open space by McHenry County Conservation District. The Illinois Department of Natural Resources may assist with providing the funding for the project.

Action Item 15: Safe Rooms

The need for additional safe rooms throughout the county should be considered, including safe rooms and sheltering in residences, businesses, critical facilities, health care facilities, and schools. As needs are identified, grant funding should be pursued for the construction of safe rooms.

Status: No action at this time

Action Item 16: Community Rating System Participation

McHenry County and the municipalities that participate in the NFIP should consider participating in the Community Rating System (CRS). Currently, the county and three municipalities participate in this program.

Status: Ongoing

McHenry County is working on the adoption of the 2012 International Building Code. Once this action is complete, McHenry County will be eligible for an improved Community Rating System (CRS) classification.

Lake in the Hills changed their Community Rating System rating from 7 to 6 as of October 2011. The additional points were gained by formalizing their drainage maintenance plan and adoption of the Natural Hazards Mitigation Plan.

The City of Woodstock also improved their Community Rating System to a 7 as of November 2011.

The City of Crystal Lake joined the CRS in 2011 and is a Class 6 Community.

McHenry County also improved their Community Rating System to an 8 as of November 2011.

Action Item 17: Urban Forestry – Participation in Tree City USA

McHenry County municipalities that are Tree City USA communities will maintain their status in the nationwide program, and communities that are not in the program will consider joining the program. It is understood that each municipality will make these considerations based on available staffing and financial resources.

Status: Ongoing

Five (5) McHenry County communities currently participate in the Tree City USA program; Algonquin, Cary, Lake in the Hills, Lakewood and McHenry.

Action Item 18: Participation in StormReady

McHenry County, communities and other agencies should consider joining the National Weather Service's StormReady program. The StormReady program has been developed to provide communities guidelines to improve the timeliness and effectiveness of hazardous weather-related warnings for the public.

Status: McHenry County Emergency Management Agency is currently reviewing the guidelines to become StormReady.

Action Item 19: Strengthen Building Codes and Code Enforcement Training

Communities that have not adopted the International Code series of building codes should do so, and for all communities, future code revisions should be pursued to strengthen new buildings against damage by high winds, tornadoes, hail, and earthquakes. Requiring tornado “safe rooms” in certain structures should be considered. Any code revisions should be consistent with the efforts undertaken by multi-community organizations of building department staff.

Status: No action at this time, however the City of McHenry now has 2006 International Codes. Lake in the Hills adopted 2012 International Codes. McHenry County will be considering updating the county’s building codes.

McHenry County is working on the adoption of the 2012 International Building Code.

Action Item 20: Seek Mitigation Grant Funding for Additional Mitigation Planning and Cost Beneficial Projects

The County, municipalities, townships, other agencies and institutions should apply for mitigation grant funding through available IEMA and FEMA programs for mitigation planning and mitigation projects. As required by IEMA and FEMA programs, projects must be cost beneficial. FEMA hazard mitigation funding including PDM, HMGP, FMA and Section 406 of the Stafford Act (for facilities and infrastructure damaged due to a presidentially declared disaster) should be considered.

Status: McHenry County Department of Transportation, Emergency Management, and the Soil & Water Conservation District have met to discuss possible funding for a Living Snow Fence project. The project would also include the Farm Bureau of McHenry County.

Action Item 21: Implementation of the Water Resources Protection Action Plan

The County, municipalities and townships should implement the water quality and groundwater protection measures recommended by the “McHenry County Water Resources Protection Action Plan.”

Status: No action at this time

Action Item 22: Development of a Public Information Strategy

A countywide natural hazards public information strategy should be developed for the use of the County, municipalities, townships and institutions. The strategy should be consistent with the recommended approach for the CRS program. The most important topics to cover are:

- Safety
- Protecting your property
- Understanding floods
- Protecting our watersheds

The most appropriate ways to provide information are:

- Community newsletters
- Newspaper articles
- Web sites and links to other sources
- Handouts at public places

Status: No action at this time, however public information activities have continued independently with the County and the municipalities

Action Item 23: Property Protection References

Provide municipal departments, libraries and other interested offices with a list of references on property protection that can be ordered for free from state and federal offices. Include a request that they make the references available for public use. A special effort should be made to identify references on insurance, emergency preparedness and property protection.

Also, identify web sites that provide property protection information and provide their addresses to the County and municipal webmasters.

Status: No action at this time

Summary

The focus of this 2013 annual evaluation report of the McHenry County Natural Hazards Mitigation Plan is on the implementation of the action items by municipalities and institutions.

Table 1.

Status of Adoption and Approval of the McHenry County Natural Hazard Mitigation Plan

Community Name	Municipal Adopted Resolution	CRS Class a of November 2013
Village of Algonquin	January 18, 2011	
Village of Barrington Hills	DECLINED	
Village of Bull Valley		
Village of Cary	May 3, 2011	
City of Crystal Lake	March 15, 2011	6
Village of Fox Lake		
Village of Fox River Grove	June 16, 2011	
Village of Greenwood	X	
City of Harvard	November 23, 2010	
Village of Hebron	January 18, 2010	
Village of Holiday Hills	May 16, 2011	
Village of Huntley	April 14, 2011	
Village of Island Lake	July 14, 2011	
Village of Johnsburg		
Village of Lake in the Hills	January 27, 2011	6
Village of Lakemoor	TO COME	
Village of Lakewood	November 23, 2010	
Village of McCullom Lake	January 11, 2011	
City of McHenry	January 31, 2011	
City of Marengo	January 11, 2011	
Village of Oakwood Hills		
Village of Port Barrington	DECLINED	
Village of Prairie Grove	March 15, 2011	
Village of Richmond		
Village of Ringwood		
Village of Spring Grove	December 7, 2010	
Village of Trout Valley		
Village of Union	February 15, 2011	
Village of Wonder Lake	February 16, 2011	
City of Woodstock	December 7, 2010	7
McHenry County	December 22, 2010	8
Alden Township	January 14, 2010	
Algonquin Township (Highway)	February 9, 2011	
Burton Township		
Chemung Township	DECLINED	
Coral Township	December 8, 2010	
Dunham Township		
Grafton Township		
Greenwood Township	February 15, 2010	
Hartland Township	TO COME	
Hebron Township		
McHenry Township	February 10, 2011	
Marengo Township	June 20, 2011	
Nunda Township	June 14, 2011	
Richmond Township	February 9, 2011	
Riley Township	April 11, 2011	
Seneca Township		
McHenry Township Road Dist	February 10, 2011	
McHenry Township Fire P Dist	DECLINED	
Woodstock Fire Rescue	January 27, 2011	